



# UNITED STATES PATENT AND TRADEMARK OFFICE

*cer*

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,067	07/16/2001	Yatin Acharya	95-512	5989
20736	7590	06/08/2007	EXAMINER	
MANELLI DENISON & SELTER 2000 M STREET NW SUITE 700 WASHINGTON, DC 20036-3307				WILSON, ROBERT W
ART UNIT		PAPER NUMBER		
		2616		
MAIL DATE		DELIVERY MODE		
		06/08/2007 PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/905,067	ACHARYA, YATIN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Robert W. Wilson	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 20 March 2007.

2a) This action is FINAL.                  2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-15 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/24/01.

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 1, what is meant by “a size of address field”? It is unclear whether applicant is referring to size of the address field of the tag or destination address.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Referring to claims 1, 7, & 9, what is meant by “tag having the selected size without altering the contents of the header”? The applicant’s specification clearly teaches adding the tag. Where in the specification does the applicant specifically state that the header is added without altering the contents of the header. Because the examiner has not found this specific limitations in the specification he believes that this is new matter which was not in applicant’s possession at the time of filing.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 3-6, 9, & 13-15 contains the trademark/trade name InfiniBand. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe products and, accordingly, the identification/description is indefinite.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claim 1 is rejected under 35 U.S.C. 102(E) as being anticipated by Benayoun (U.S. Patent No.: 6,499,061).

Referring to claim 1, Benayoun teaches: a method (Method performed per Fig 1) comprising: selecting by a network manager a size of address fields to be used for switching data packets traversing the network based on a number of the detected network nodes each data packet having a header with connect (Inherent network manager provides synchronization between network nodes 12 and 14 per Fig 1 addition and removal of a label or tag per Fig 1. The size of the address field in the header are inherently known in order for the address field to be processed )

Configuring by a network manager each network switch of the network each of the data packets based on a corresponding switch tag, added to the start of the corresponding data packet and the switching tag having the selected size without altering the content of the header (Each network switch (12 and 14 respectively per Fig 1 ) are inherently configured to add a label or tag at the start of a data packet without altering the data packet)

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2 & 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benayoun (U.S. Patent No.: 6,499,061) in view of Fan (U.S. Patent No.: 6,643,269)

Referring to claim 2, Benayoun teaches: the method of claim 1,

Benayoun does not expressly call for: wherein the configuring step includes sending a management datagram to each network switch the management data gram specifying that the switching is to based on the switching tag and the selected size of the switching tag

Fan teaches: wherein the configuring step includes sending a management datagram to each network switch the management data gram specifying that the switching is to based on the switching tag and the selected size of the switching tag (The master CPU in the network relocates short addresses to all nodes (message must be inherently sent to all nodes which the examiner interprets as a datagram which specified the short address is to be used per col. 10 lines 40 to 52)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the message sending to utilize shorter address of Fan to the label switching of Benayoun in order to build a system which assigns the label or tag or flow identifier based upon the stability of the network per col. 5 lines 40 to col. 6 line 14 of FAN.

Referring to claim 7, Fan teaches: a network manager (Master CPU per col. 10 lines 41 to 52) An explorer resource configured for detecting network nodes no the network (discovery process for distributing discovery messages for status of modes per col. 2 lines 1 to 24 and col. 10 lines 41 to 52)

And a controller configured for selecting a size of address fields to be used for the switching data packet traversing the network based on a number of the detected network nodes each packet having header with content the controller configuring each network switch of the network to switch each of the data packets based on a corresponding switching tag (Master CPU or controller sends a status message to the network nodes (12 & 14 per Fig 1) stating the status of the network and inherently synchronizing the size of the field in the header based number of network nodes)

Fan does not expressly call for: adding the switching tag to the start of the corresponding data packet without altering the header.

Benayoun teaches: adding the switching tag to the start of the corresponding data packet without altering the header per Fig 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the adding the switching tag to the start of the corresponding data packet without altering the header of Benayoun in place of the modifying the header of Fan because label switching is a faster method of switching packets because the system is not required to look at multiple parameters inside the header in order to switch the packets.

Referring to claim 8, the combination of Benayoun and Fan teaches: the method of claim 7,

Benayoun does not expressly call for: wherein the configuring step includes sending a management datagram to each network switch the management data gram specifying that the switching is to based on the switching tag and the selected size of the switching tag

Fan teaches: wherein the configuring step includes sending a management datagram to each network switch the management data gram specifying that the switching is to based on the switching tag and the selected size of the switching tag (The master CPU in the network relocates short addresses to all nodes (message must be inherently sent to all nodes which the examiner interprets as a datagram which specified the short address is to be used per col. 10 lines 40 to 52)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the message sending to utilize shorter address of Fan to the label switching of Benayoun and Fan in order to build a system which assigns the label or tag or flow identifier based upon the stability of the network per col. 5 lines 40 to col. 6 line 14 of FAN.

Art Unit: 2616

11. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benayoun (U.S. Patent No.: 6,499,061) in view of Chui (U.S. Patent Pub No.: US2002/0165978)

Referring to claim 3, Benayoun teaches: the method of claim 1 and wherein detecting step and configuring step include access the network according to a network protocol (label is added to packet which is based upon a protocol per Fig 1)

Benayoun does not expressly call for: Infiniband packet

Chui teaches: Infiniband packets per Pg 6 Para [0195].

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the infiniband packet of Chui in place of the packet of Benayoun because Infiniband packet is another type of packet in which label switching could be utilized in order to more quickly switch the packets between switches without looking up a destination address.

In addition Benyoun teaches

Referring to claim 4, the combination of Chui and Benayoun teaches: the method of claim 3 and Infiniband packet in addition Benayoun teaches: receiving by a first of the network switches a packet having a destination local identifier specifying a destination node on the network (12 per Fig 1 receives a packet with a destination address for a node which inherently must be on the network per col. 3 lines 6-12)

Adding by the first network switch a new switching tag on the start of the infiniband packet having a selected size and specifying the destination node based on the DLID and switching the infiniband packet having the new switching tag to a second of the network switches based on the switching tag (12 per Fig 1 adds a label or flow identifier based upon a destination address for a node wherein the label inherently has a selected size in order for the switches to recognize the labels per col. 3 lines 6-12)

Referring to claim 5, the combination of Chui and Benyoun teach: the method of claim 4 and infiniband packet Benayoun teaches: receiving the packet including the new switching tag by the second network switch and selectively outputting the infiniband packet following removal of the new switching tag to the destination node based on the destination node being reachable by the second network switch.(14 per Fig 1 (second network switch) receives the packet with the label and removes the label or tag and adds another label or tag based upon whether the destination address of the packet is reachable by 12 per Fig 1)

Referring to claim 6, the combination of Chui and Benyanoun teach: the method of claim 5 and infiniband packet Benyanoun teaches: further comprising selectively outputting by the second

Art Unit: 2616

network switch the packet including the new switching tag to a third of the network switches based on a determined unreachability of the destination node by the second network switch (14 per Fig 1 (second network switch) receives the packet with the label and removes the label or tag and adds another label or tag based upon whether the destination address of the packet is reachable by 12 per Fig 1)

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Benayoun (U.S. Patent No.: 6,499,061) in view of Fan (U.S. Patent No.: 6,643,269) further in view of Chui (U.S. Patent Pub No.: US2002/0165978)

Referring to claim 9, the combination of Fan and Benyanou teach: the method of claim 7 as well as a network packet protocol and Fan teaches wherein the explore resource and congress or for access the network according to a network protocol (col. 10 lines 41 to 52 and col. 2 lines 8 to 24)

The combination of Fan and Benyanou do not expressly call for: Infiniband protocol.

Chui teaches: Infiniband packets or protocol. per Pg 6 Para [0195].

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the infiniband packets or protocol of Chui in place of the packet of Fan and Benayoun because Infiniband packet is another type of packet in which label switching could be utilized in order to more quickly switch the packets between switches without looking up a destination address

13. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable in view of Fan (U.S. Patent No.: 6,643,269) further in view of Benayoun (U.S. Patent No.: 6,499,061)

Referring to claim 10, Fan teaches: a network within a server system comprising a plurality of nodes (which are switches in a ring per Fig 1)

A network manager configured for detecting network nodes and the network switches, the network manager configured for selecting a size of address fields to be used for switching the data packets based on a number of the detected network nodes and the detected network switches each data packet having a header with content (A Master CPU 46 or network manager reallocates shortened addresses to all nodes in the network based upon receiving the message of the changed session number from network nodes which are switches per col. 10 lines 40-52. A node identifies topology changes and broadcasts a changed to session number to all of the nodes per col. 3 line 6-col. 4 line 7. each of the packet header inherently have content)

Art Unit: 2616

The network manager configured for configuring the network switches to switch each of the data packets based on a corresponding switching tag added to a data packet and the switching tag having a selected size each switch received data packet based on the corresponding switching tag (The Master CPU 46 reallocates a shortened address to all nodes which are switches in the network based upon the topology change per col. 10 lines 40-52. Based upon the reallocation of the shorten addresses by the Master CPU 46 the packet processor in each node replaces the long addresses with the shorten addresses per col. 6 line 15-col. 7 line 67. The applicant broadly claims "tag is added to the start of a corresponding data packet". The destination address is added to the header which the examiner interprets as the beginning of the packet and the switching tag is either long address or short address which is specified in the header in the address type field per Figs 2 and 4 or a switching tag having a selected size Fan selecting the size of address field based upon the number of network nodes but teaches shortening the address based upon topology changes per col. 3 line 6-col. 4 line 7.)

Fan does not expressly call for: adding the switching tag to the start of the corresponding data packet without altering the header.

Benayoun teaches: adding the switching tag to the start of the corresponding data packet without altering the header per Fig 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the adding the switching tag to the start of the corresponding data packet without altering the header of Benayoun in place of the modifying the header of Fan because label switching is a faster method of switching packets because the system is not required to look at multiple parameters inside the header in order to switch the packets.

In Addition Fan teaches:

Regarding claim 11, Fan teaches a shortened address as well as sending a type of address or wherein the size corresponds to a selected number of bits. per col. 3 line 6 or col. 4 line 7.

Regarding claim 12 Fan teaches: look up table per col., 7 line 11-67 or col. 8 line 55-col. 10 line 67.

14. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan (U.S. Patent No.: 6,643,269) in view Benayoun (U.S. Patent No.: 6,499,061) further in view of Chui (U.S. Patent Pub No.: US2002/0165978)

Art Unit: 2616

Referring to claim 13, the combination of Fan & Benayoun teaches: the method of 11 and wherein detecting step and configuring step include access the network according to a network protocol (label is added to packet which is based upon a protocol per Fig 1)

The combination of Benayoun and Fan do not expressly call for: Infiniband packet

Chui teaches: Infiniband packets per Pg 6 Para [0195].

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the infiniband packet of Chui in place of the packet of the combination of Fan and Benayoun because Infiniband packet is another type of packet in which label switching could be utilized in order to more quickly switch the packets between switches without looking up a destination address.

Referring to claim 14, the combination of Fan and Benayoun teaches: the method of claim 11 and Infiniband packet in addition Benayoun teaches: receiving by a first of the network switches a packet having a destination local identifier specifying a destination node on the network (12 per Fig 1 receives a packet with a destination address for a node which inherently must be on the network per col. 3 lines 6-12)

Adding by the first network switch a new switching tag on the start of the infiniband packet having a selected size and specifying the destination node based on the DLID and switching the infiniband packet having the new switching tag to a second of the network switches based on the switching tag (12 per Fig 1 adds a label or flow identifier based upon a destination address for a node wherein the label inherently has a selected size in order for the switches to recognize the labels per col. 3 lines 6-12)

The combination of Benayoun and Fan do not expressly call for: Infiniband packet

Chui teaches: Infiniband packets per Pg 6 Para [0195].

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the infiniband packet of Chui in place of the packet of the combination of Fan and Benayoun because Infiniband packet is another type of packet in which label switching could be utilized in order to more quickly switch the packets between switches without looking up a destination address.

Referring to claim 15, the combination of Fan, Benyoun, and Chui teach: the method of claim 14 and infiniband packet

The combination of Fan and Chui do not expressly call for: removing the new switching tag from the InfiniBand packet based on whether the new switching tag specifies a destination anode is reachable by the corresponding node.

Benayoun teaches removing the new switching tag from the InfiniBand packet based on whether the new switching tag specifies a destination anode is reachable by the corresponding node (14 per Fig 1 (second network switch) receives the packet with the label and removes the label or tag and adds another label or tag based upon whether the destination address of the packet is reachable by 12 per Fig 1)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add removing the new switching tag from the InfiniBand packet based on whether the new switching tag specifies a destination anode is reachable by the corresponding node of Benyaoun to the switching of infiniband packets of the combination of Fan Benyound and Chui in order to build a system which utilizes label or tag switching which is faster than routing packets.

*Response to Amendment*

15. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

The examiner respectively disagrees with applicant's argument relative applicant's argument that having a trademark in the claims is acceptable. The MPEP Para 7.35 specifically states that trademark name as a claim limitation is not acceptable and the claim must be canceled.

*Conclusion*

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075.

The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. VU can be reached on 571/272-73155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Robert W Wilson  
Examiner  
Art Unit 2616

RWW  
5/21/07